AMENDMENTS TO THE CLAIMS

Claims 1-20 and 34-35 are withdrawn.

Claim 21(currently amended): A hard disk drive data archive system for emulating electrically a tape library including a multiplicity of tape cartridges each having a predetermined storage capacity, the hard disk drive data archive system comprising:

a hot pluggable multi-drive magazine comprising a housing and a plurality of hard disk drives installed within the housing,

each hard disk drive upon installation being connected to receive power and data from the magazine in a controlled fashion, and

each hard disk drive defining an electrical data storage capacity at least equal to the predetermined storage capacity of [[a]] said tape cartridge being emulated.

Claim 22 (original): The hard disk drive data archive system set forth in claim 21 further comprising a magazine receiving system connected to a host data processing system and for physically receiving the magazine and thereupon providing power and data connections to the magazine, such that when the magazine is received within the magazine receiving system, the hard disk drives selectively receive power and data connections with the magazine receiving system, and archive system control means associated with the magazine receiving system for enabling virtual loading and unloading of said hard disk drives in response to host data processing system commands issued to load and unload tape cartridges being emulated.

Claim 23 (currently amended): The hard disk drive data archive system set forth in claim 21 wherein [[a]] said hard disk drive implements a tape file mark structure in hard disk logical block address space as a double linked list heuristic including pointers to a last file marker and a next file marker.

Claim 24 (original): The hard disk drive data archive system set forth in claim 23 wherein each file mark structure occupies a separate sector in logical block address space of said drive.

Claim 25 (currently amended): A method for archiving user data within an active data processing system comprising steps of:

A. transferring said user data to be archived to a hard disk archive array comprising at least one hot pluggable multi-drive magazine having a housing and a plurality of hard disk drives installed within the housing, each hard disk drive upon installation being connected to receive power and data from the magazine in a controlled fashion; and, a magazine receiving system connected to the active data processing system for physically receiving the magazine and thereupon providing power and data connections to the magazine, such that when the magazine is received within the magazine receiving system, the hard disk drives selectively receive power and data connections with the magazine receiving system,

B. removing the magazine from the magazine receiving system connected to the active data processing system following completion of transfer of user data to be archived,

C. installing the magazine in a data preservation vault in a secure location remote from a location of the active data processing system, and,

D. periodically and selectively applying power to each one of the hard disk drives installed within the magazine in the data preservation vault during a drive testing interval, and carrying out drive performance checks upon [[a]] said drive during the drive testing interval.

Claim 26 (currently amended): The archiving method set forth in claim 25 wherein the step (D) includes a step of read-verifying archived data stored on ~~the~~ said one of the hard disk drives being performance checked.

Claim 27 (currently amended): The archiving method set forth in claim 26 wherein the step of read-verifying archived data stored on ~~the~~ said one of the hard disk drives is carried out by the archive magazine receiving system by using a limited bandwidth data and control connection with said drive.

Claim 28 (currently amended): The archiving method set forth in claim 27 wherein the step of read-verifying archived data stored on ~~the~~ said one of the hard disk drives is carried out by sending control signals to said drive from an archive computer associated with the archive magazine receiving system and receiving status and user data from said drive at said archive computer.

Claim 29 (original): The archiving method set forth in claim 28 wherein the archive computer has a network connection to an active data processing system and comprising further steps of receiving an archived user data file retrieval request from the active data processing system via the network connection, retrieving the archived user data file from at least one of the hard disk drives of a magazine installed in the archive magazine receiving system and sending the retrieved archived user data file to the

active data processing system via the network connection.

Claim 30 (original): The archiving method set forth in claim 25 being adapted to emulate a cartridge tape library and including the step of assigning each said hard disk drive to emulate a tape cartridge of said cartridge tape library.

Claim 31 (currently amended): The archiving method set forth in claim 30 wherein the step of assigning each hard disk drive to emulate a tape cartridge is carried out by associating [[a]] said hard disk drive with a single tape cartridge of the cartridge tape library.

Claim 32 (currently amended): The archiving method set forth in claim 30 including a further step of implementing a tape file mark structure in logical block address space of [[a]] said hard disk drive as a double-linked-list heuristic including pointers to a last file marker and a next file marker.

Claim 33 (original): The archiving method set forth in claim 32 wherein the step of implementing a tape file mark comprises the step of recording each file mark structure within a separate sector in logical block address space of said drive.